

Amendments to the Drawings:

The attached sheets each labeled "Replacement Sheet" include changes to FIGS. 2 and 3.

In the amended FIGS. 2 and 3, the lead line corresponding to the character 5 "66" is extended leftwards to correctly point out the chamber 66 of the lens holder 42.

In the amended FIG. 2, characters "82A" and "82B" are added.

These amendments can be clearly understood according to the original drawing, so new matter is added.

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 5 1. (Currently amended) An image sensor module, comprising:
~~an image sensor package; formed with a top end face having a transparent layer and a bottom end face;~~
~~a lens holder, which is formed with a chamber and has an internal thread formed on an inner wall of the lens holder; and formed with a chamber, which has an internal thread formed at the inner wall, so that the transparent layer of the image sensor package is arranged at the lens holder;~~
10 a lens barrel inserted into within the chamber of the lens holder, and formed with an external thread, ~~which is screwed on~~ screwed to the internal thread of the lens holder, the lens barrel being further formed with an opening, ~~and~~ a hole
15 communicating with the opening, ~~and~~ which is formed with a first positioned positioning slot for directly positioning and holding an aspheric lens, wherein the lens barrel is integrally formed with the opening, the hole and the first positioning slot, and circumferential walls of the hole and the opening are made of the same material.
20 2. (Currently amended) The image sensor module according to claim 1,
~~wherein the lens barrel is formed with a second positioned positioning slot under the first positioned positioning slot, the second positioned slot is for directly positioning and holding an infrared filter, and the second positioned slot has an annular upper surface and an annular lower surface facing the annular upper surface.~~
25 3. (Currently amended) The image sensor module according to claim 1,
~~wherein the image sensor package includes a substrate, a frame layer arranged on the substrate, a photosensitive chip arranged on the substrate and electrically connected to the substrate by wires, and a transparent layer mounted on the frame layer.~~
30 4. (Currently amended) The image sensor module according to claim 1,

wherein the transparent layer is another infrared filter.

5. (Currently amended) A method for manufacturing an image sensor module, comprising the steps of:

providing an image sensor package; ~~formed with a top end face having a transparent layer and a bottom end face~~

5 providing a lens holder, which is formed with a chamber and has an internal thread formed on an inner wall of the lens holder; and formed with a chamber, which has an internal thread formed at the inner wall, so that the transparent layer of the image sensor package is arranged at the lens holder

10 providing a lens barrel inserted into ~~within~~ the chamber of the lens holder, and formed with an external thread, which is screwed on ~~screwed to~~ the internal thread of the lens holder, the lens barrel being further formed with an opening, and a hole communicating with the opening, and ~~which is formed with a first positioned positioning slot for directly positioning and holding an aspheric lens, wherein the lens barrel is integrally formed with the opening, the hole and the first positioned positioning slot by way of injection molding, circumferential walls of the hole and the opening are made of the same material, and the lens barrel and the aspheric lens are combined together when the injection molding is being performed, being integrated formed by injecting molded.~~

15 20 6. (Currently amended) The method according to claim 65, wherein the lens barrel is formed with a second positioned positioning slot under the first positioned positioning slot, the second positioning slot is for directly positioning and holding an infrared filter, and the second positioning slot has an annular upper surface and an annular lower surface facing the annular upper surface.

25 7. (Currently amended) The method according to claim 65, wherein the image sensor package includes a substrate, a frame layer arranged on the substrate, a photosensitive chip arranged on the substrate and electrically connected to the substrate by wires, and a transparent layer mounted on the frame layer.

REMARKS/ARGUMENTS

The title of the invention has been changed to "IMAGE SENSOR MODULE HAVING LENS BARREL INTEGRALLY FORMED WITH HOLE AND POSITIONING SLOT AND METHOD FOR MANUFACTURING THE SAME", which is clearly indicative of the invention to which the claims are directed.

The specification has been amended without adding new matters and will be explained as below. It is further stated that the substitute specification contains no new matter.

- 10 1. Some errors are corrected.
2. The following features are added according to the property of injection molding, the original drawings and the amended drawings:
 - 15 2.1. the lens barrel 44 is further formed with an opening 72, a hole 74 communicating with the opening 72, a first positioning slot 80 for directly positioning and holding an aspheric lens 76, and a second positioning slot 82, disposed under the first positioning slot 80, for directly positioning and holding an infrared filter 78;
 - 20 2.2. the lens barrel 44 is integrally formed with the opening 72, the hole 74, the first positioning slot 80 and the second positioning slot 82, and circumferential walls of the hole 74 and the opening 72 are made of the same material;
 - 25 2.3. the second positioning slot 82 has an annular upper surface 82A and an annular lower surface 82B facing the annular upper surface 82A; and
 - 2.4. the lens barrel 44 and the aspheric lens 76 are combined together when the injection molding is being performed.

Claims 1-7 are now present in this application. Claims 7 and 8 are renumbered claims 6 and 7 to overcome the claim objections. Claims 1-7 have been amended according to the amended specification without adding new matters.

Claim objections

Claims 7 and 8 are renumbered as claims 6 and 7 to overcome the claim objections.

Obviousness Type Double Patenting Rejection

Claims 1-5 and 7-8 are provisionally rejected on the ground of nonstatutory 5 obviousness-type double patenting as being unpatentable over claims 1-3 of copending Application No. 10/705,380 in view of Wu et al (U.S. Pub. No. 2005/00099659).

Response:

Claims 1 and 5 have been amended to overcome the rejections. In fact, the 10 first position slot (internal thread 64) cannot directly position and hold the aspheric lens (72). Also, the copending Application No. 10/705,380 does *not* disclose or teach that the lens barrel is integrally formed with the opening, the hole and the first positioning slot, and that the circumferential walls of the hole and the opening are made of the same material.

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Claim rejections – 35 U.S.C. 102

The examiner rejects claims 1-5 and 7-8 under 35 U.S.C. 102(b) as being anticipated by Wu et al. (US 2005/0099569).

Response:

20 Claim 1 has amended to include the following features:

1. the lens barrel is integrally formed with the opening, the hole and the first positioning slot; and

2. circumferential walls of the hole and the opening are made of the same material.

25 In the ‘659 patent publication, however, the lens barrel (46) is **not** integrally formed with the opening (68), the hole (70) and the first positioning slot, and the circumferential walls of the hole (70) and the opening (68) are **not** made of the same material. These features can be clearly understood according to FIG. 2 of the ‘659 patent publication. Considerations of the amended claim 1 and its 30 dependent claims 2-4 are therefore politely requested.

Claim 2 has amended to include the following features:

the second positioning slot has an annular upper surface and an annular lower surface facing the annular upper surface.

In the ‘659 patent publication, however, the second positioning slot **does not** 5 **have** an annular lower surface facing an annular upper surface. Considerations of the amended claim 2 are therefore politely requested.

Claim 5 has amended to include the following features:

1. the lens barrel is integrally formed with the opening, the hole and the first 10 positioning slot;

2. circumferential walls of the hole and the opening are made of the same material; and

3. the lens barrel and the aspheric lens are combined together when the injection molding is being performed.

15. In the ‘659 patent publication, however, the lens barrel (46) is **not** integrally formed with the opening (68), the hole (70) and the first positioning slot, and the circumferential walls of the hole (70) and the opening (68) are **not** made of the same material. Also, the lens barrel (46) and the aspheric lens (72) are not combined together when the injection molding is being performed. These 20 features can be clearly understood according to FIG. 2 of the ‘659 patent publication. Considerations of the amended claim 5 and its dependent claims 6 and 7 are therefore politely requested.

Claim 6 has amended to include the following features:

25 the second positioning slot has an annular upper surface and an annular lower surface facing the annular upper surface.

In the ‘659 patent publication, however, the second positioning slot **does not** have an annular lower surface facing an annular upper surface. Considerations of the amended claim 6 are therefore politely requested.

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In light of the above-mentioned amendments and remarks, Applicant now

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Reply to Office action of 05/04/2007

asserts that all of the grounds for rejection have been traversed or overcome by amendments, and that all of the present claims are in condition for immediate allowance. Applicant therefore requests reconsideration of the objections and rejections, and solicits allowance of the present claims at an early date.

5 Thank you for your consideration.

Respectfully submitted,



Ralph Willgohs

Reg. No. 48,800